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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.

10/516,799

Confirmation No. 7350

**Applicant** 

Csaba Szeles et al.

Filed

: July 27, 2005

Title

Radiation Detector

Group Art Unit

2878

Examiner

Not Yet Assigned

Customer No.

28289

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to the requirements of 37 CFR §§ 1.56, 1.97, and 1.98, Applicants hereby submit this Information Disclosure Statement, which includes a completed Form PTO/SB/08A and one copy of each non-patent reference identified therein.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA

22313-1450

on

October 31, 2005 Date

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Signatu

Lisa R. McNany
Typed or Printed Name of Person Signing Certificate

{W0223784.1}

Patent Application No. 10/516,799 Paper Dated October 31, 2005 Attorney Docket No. 4375-045835

This application is the United States national phase of PCT Application No. PCT/US03/18225, filed June 10, 2003, claiming a priority date of June 10, 2002, corresponding to United States Provisional Application No. 60/387,661. The United States patent references identified in Form PTO/SB/08A were cited in an International Search Report dated November 5, 2003, in the underlying PCT application. These references were designated as "Category A" state-of-the-art references in the International Search Report, indicating that these references were not considered to be of particular relevance. A copy of the International Search Report is attached hereto for the Examiner's convenience. Abstracts of the non-patent references identified in Form PTO/SB/08A are enclosed herewith. However, no abstract of the article entitled "Gallium Arsenide Radiation Detectors and Spectrometers" is provided, as this reference is not readily available to the Applicants. Of note, this reference stands for the notion that prior art radiation detectors fabricated from semi-insulating III-V compounds (i.e. GaAs) are hampered by low-resistivity and limited active depletion regions.

Pursuant to 37 C.F.R. § 1.97(b)(3), no fee is believed to be due for the filing of this Information Disclosure Statement as it is being submitted before the mailing date of a first Office Action on the merits. The Commissioner for Patents is hereby authorized to charge any additional fees which may be required to Deposit Account No. 23-0650. One (1) original and two (2) copies of this Information Disclosure Statement are enclosed.

Respectfully submitted,

THE WEBB LAW FIRM

Richard L. Byrne

Registration No. 28,498 Attorney for Applicant

700 Koppers Building

436 Seventh Avenue

Pittsburgh, PA 15219-1845

Telephone: 412-471-8815 Facsimile: 412-471-4094 NOV 0 2 2005

PTO/SB/08a (07-05)

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Substitute for form 1449 A/PTO				Comp	plete if Known		
INFORMATION DISCLOSURE			LIDE	Application Number	10/516,799		
		Filing Date	July 27, 2005				
STATEMENT BY APPLICANT				First Named Inventor	Csaba Szeles		
(Use as many sheets as necessary)			Art Unit	2878			
	<u> </u>			Examiner Name	Not Yet Assigned		
Sheet	1	of	2	Attorney Docket Number	4375-045835		

			U.S. PATENT I	DOCUMENTS	
Examiner Initials*	Cite No. <sup>1</sup>	Document Number  Number - Kind Code <sup>2 (if known)</sup>	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1	US- 5,861,321	01-19-1999	Tregilgas et al.	
	2	US- 4,566,918	01-28-1986	Irvine et al.	
	3	US- 4,190,486	02-26-1980	Kyle	
	4	US3,718,511	02-27-1973	Moulin	
		US-			
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	FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No.1	Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines,	
mitials	140.	Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
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Examiner		Date	
Signature		Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. Senter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Substitute for form 1449B/PTO Complete if Known Application Number 10/516,799 INFORMATION DISCLOSURE Filing Date July 27, 2005 STATEMENT BY APPLICANT First Named Inventor Csaba Szeles Art Unit 2878 (Use as many sheets as necessary) Examiner Name Not Yet Assigned Sheet 4375-045835 Attorney Docket Number

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Т
	5	AVELLA et al., "Uniformity and Physical Properties of Semi-Insulating Fe-doped InP After Wafer and Ingot Annealing", Journal of Applied Physics, 1997, pp. 3836-3845, Vol. 82. No. 8, USA.	
	6	MCGREGOR, et al., "Gallium Arsenide Radiation Detectors and Spectrometers", Semiconductors and Semimetals, 1995, p. 383, Vol. 43.	
	7 :	PAPASTAMATIOU et al., "Recombination Mechanism and Carrier Lifetimes of Semi-Insulating GAAS-CR", Journal of Applied Physics, 1990, pp. 1094-1098, Vol. 68 No. 3, USA.	
	8	MARFAING, Y., "Models of Donor Impurity Compensation in Cadmium Telluride", Revue de Physique Appliquee, Feb. 1977, pp. 211-17, Vol. 12 No. 2, France.	
	9	CHERN et al., "The Defect Structure of CdTe: Hall Data", Journal of Solid State Chemistry", May 1975, pp. 33-43, Vol. 14 No. 1, USA.	
	10	SIFFERT et al., "Cadmium Telluride Nuclear Radiation Detectors", IEEE Transactions on Nuclear Science, Feb. 1975, pp. 211-25, Vol. 22 No. 1, USA.	

Examiner	Date
Signature	Considered

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.